

EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION
ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES
Summary sheet of validation data for a diagnostic test

The EPPO Standard PM 7/98 *Specific requirements for laboratories preparing accreditation for a plant pest diagnostic activity* describes how validation should be conducted. It also includes definitions of performance criteria.

Laboratory contact details	Netherlands Institute for Vectors, Invasive plants and Plant health P.O. Box 9102, 6700 HC Wageningen, Netherlands
Short description of the test	Isolation of <i>Ralstonia solanacearum</i> on SMSA
Date, reference of the validation report	2009-09-01 - September 2009 and May 2013 - BAC-2009-01, BAC-2010-05 and BAC 2016-04 (Rosa)
Validation process according to EPPO Standard PM7/98?	yes
Is the lab accredited for this test?	no
Was the validated data generated in the framework of a project?	
Description of the test	
Organism(s)	<i>Ralstonia solanacearum</i> species complex (RALSSO)
Detection / identification	detection
Matrix(ces) tested	Leaves, Tubers, Water Potato tuber, pelargonium petioles, Rosa sp. and water samples
Plant species tested	Pelargonium sp., Rosa sp., Solanum tuberosum
Method(s)	Isolation
Method: Isolation	
Reference of the test description	
Other information	
Other details on the test	Isolation on semi-selective SMSA
Performance Criteria :	
Organism 1.:	<i>Ralstonia solanacearum</i> species complex(RALSSO)
Analytical sensitivity	
What is the smallest amount of target that can be detected reliably?	From potato tuber 3×10^2 cfu/ml, From pelargonium petioles $6,5 \times 10^2$ cfu/ml From Rosa $8,6 \times 10^2$ cfu/ml . From water samples 3×10^1 cfu/ml,
Diagnostic sensitivity	
Proportion of infected/infested samples	100%

tested positive compared to results from the standard test, see appendix 2 of PM 7/98	
Standard test(s)	Real time PCR for identification of <i>Ralstonia solanacearum</i> (Weller et al., 2000)
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	24 strains of <i>Ralstonia solanacearum</i> (different race/biovar combinations)
Specificity value	100%
Analytical specificity - exclusivity	
Number of non-target organisms tested	37 strains of non-target organisms that can be found on potato tubers, water and ornamental plants
Specificity value	Some growth on SMSA by <i>Pseudomonas andropogonis</i> , <i>Burkholderia cepacia</i> , <i>Ralstonia pickettii</i> and <i>Pseudomonas syzygii</i> , however colony morphology is not typical for <i>Ralstonia solanacearum</i> (negative results)
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	100%
Specify the test(s)	Real time PCR for identification of <i>Ralstonia solanacearum</i> (Weller et al., 2000)
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Test performance study	
Test performance study?	no
The following complementary files are available online:	
	<ul style="list-style-type: none"> • BAC-1010-005 methodevalidatie kweek <i>Ralstonia solanacearum</i> in <i>Pelargonium</i> en water v2 • BAC-2016-04 verslag labvalidatie kweek <i>Rsol</i> Fylo type I vanuit <i>Rosa</i> sp. • Validation of the isolation of <i>Ralstonia solanacearum</i> from potato tuber extract

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